

Office of Sustainability

EUC Update

Lucia Athens, *Chief Sustainability Officer*
Zach Baumer, *Climate Program Manager*

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Today's Topics

- Office of Sustainability Role
- Climate Protection Resolution & Goal Perspective
 - Departmental Climate Plans overview
 - Carbon Neutral Fleet Plan progress
 - Green Purchasing
 - Carbon Offsets via new PICC program
 - Austin Green Business Leaders Program
 - Climate Change Vulnerability Assessment Grant



Office of Sustainability

Function and Mission



*We advance
local sustainability
& climate action by
providing leadership
and coordination for
initiatives across the
City organization and
the Austin community.*

Sustainability Action Agenda



Framework

10

Areas of innovation

40

Signature initiatives

150+

Projects

24

Months to real progress

Features



Coordinated framework for sustainability



Performance goals and metrics



Annual progress reports



City-wide collaboration



2007 Climate Protection Resolution

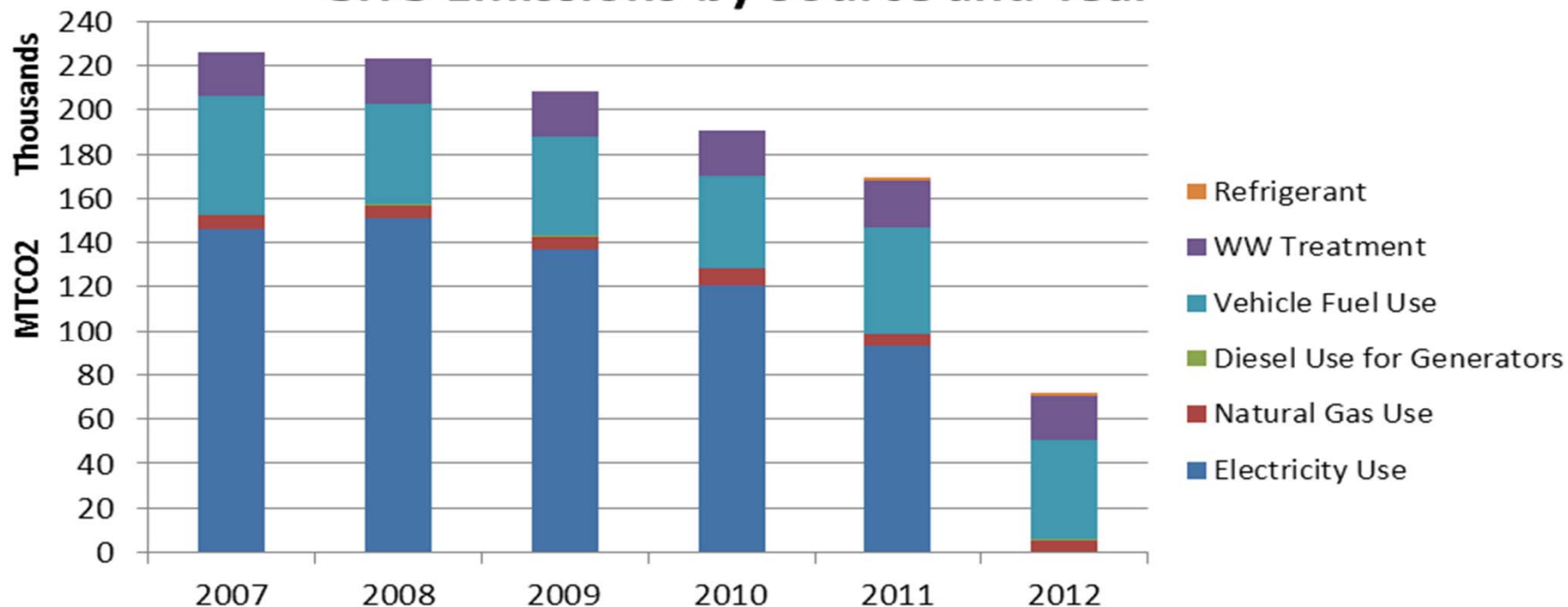
- Make AE leading utility in nation for GHG reductions (*elements covered in AE Generation Plan*)
- Implement energy efficient building codes & building retrofits (*includes ECAD & green building program*)
- City of Austin facilities, fleets, operations carbon neutral by 2020
 - ***Power all City facilities w/ renewables by 2012***
 - ***Departmental Climate Plans***
 - ***Make City fleet carbon neutral by 2020***
- **Carbon offset program for local citizens and organizations**
- **Promote carbon neutrality to travelers, festivals, conventions**
- **Recognition program for businesses**
- **Cooperate with local/regional entities on GHG strategies**



City of Austin Municipal Operations

Non-Regulated

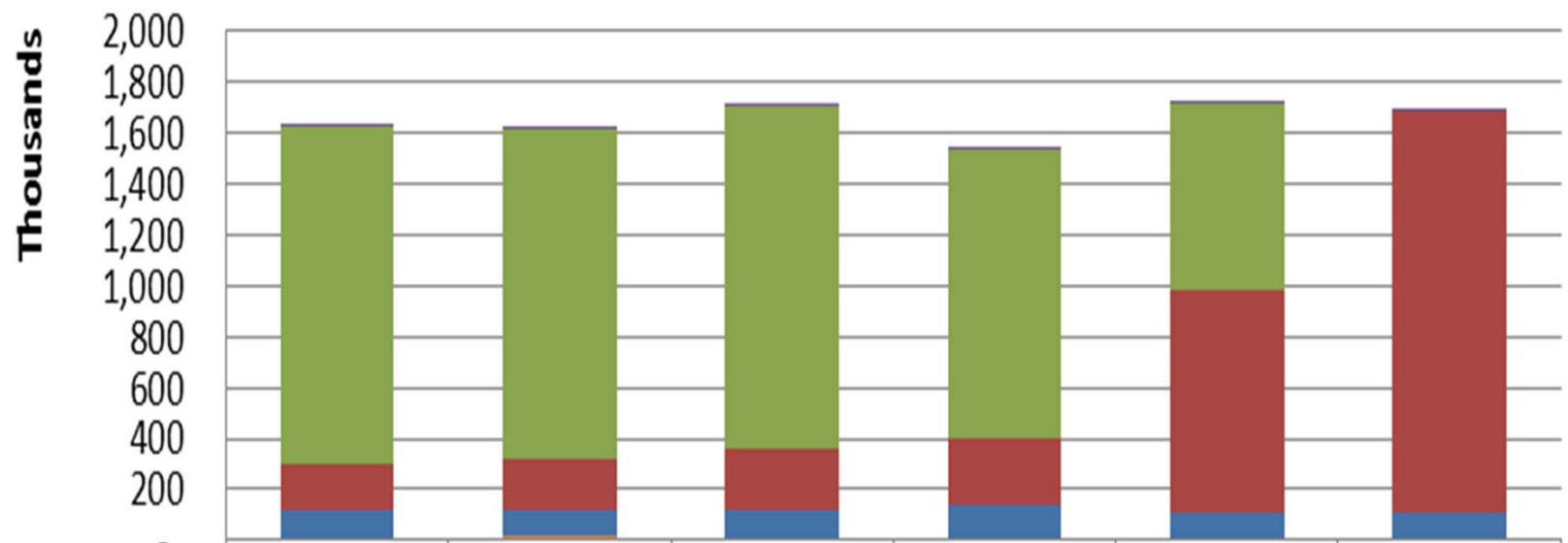
GHG Emissions by Source and Year



Emissions Source	2007	2008	2009	2010	2011	2012
Electricity Use	145,809	151,169	136,799	120,903	93,071	0
Natural Gas Use	6,733	5,879	5,984	7,226	5,422	5,538
Diesel Use for Generators	194	478	307	308	329	330
Vehicle Fuel Use	53,724	45,007	44,850	41,975	48,204	44,433
WW Treatment	19,539	20,590	20,168	20,287	20,643	20,000
Refrigerant					1,847	1,800
Total GHG Emissions	225,999	223,123	208,108	190,699	169,516	72,101
% Change in Emissions (annual)		-1%	-7%	-8%	-11%	-57%
% Change in Emissions (from baseline)		-1%	-8%	-16%	-25%	-68%

City of Austin Municipal Operations

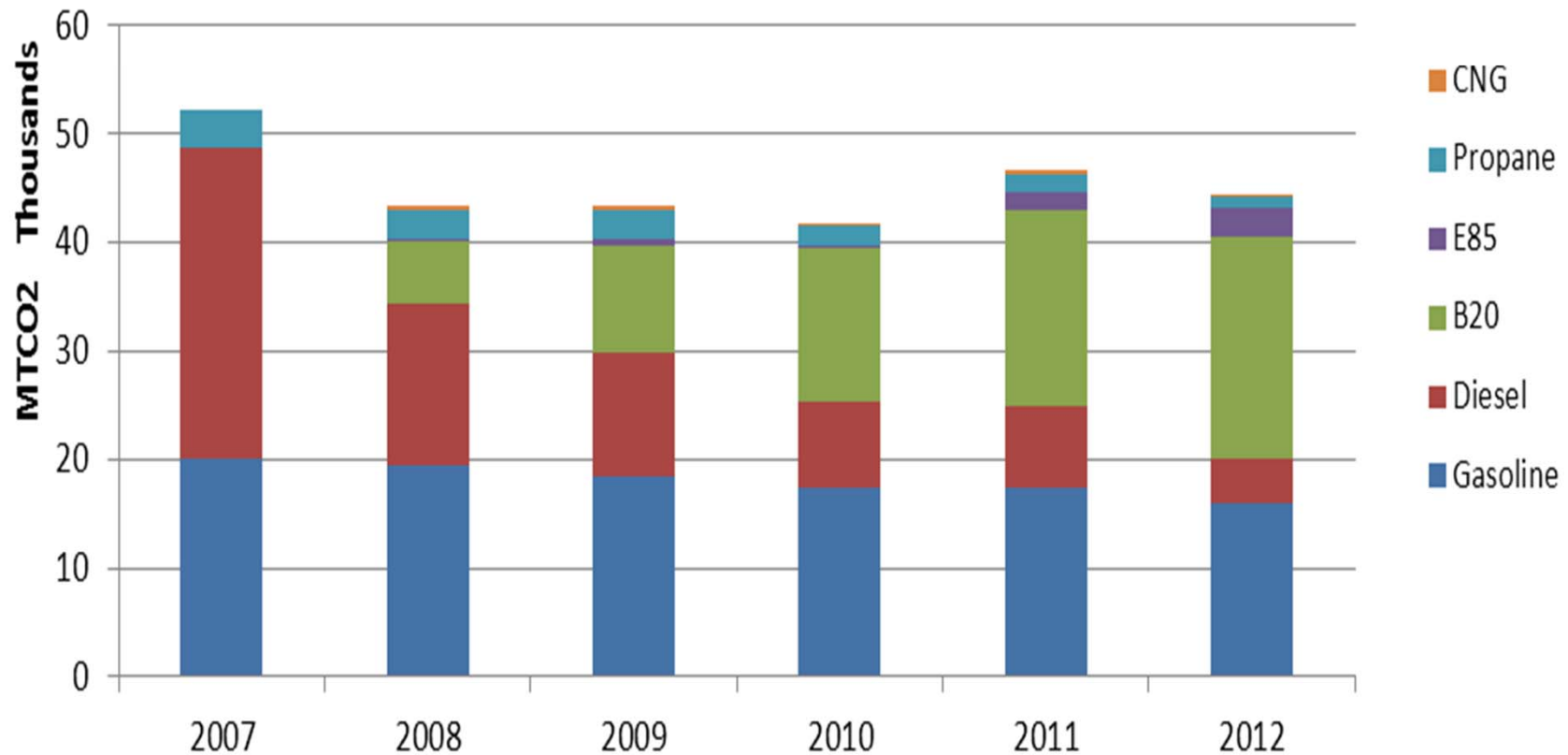
Energy Use in MMBtu



	2007	2008	2009	2010	2011	2012
■ Diesel Use for back-up Generators	2,634	6,495	4,173	4,441	4,441	4,441
■ Non GreenChoice Electricity	1,325,015	1,298,659	1,342,550	1,143,431	728,949	0
■ GreenChoice Electricity	184,436	193,581	242,587	257,610	872,693	1,569,710
■ Natural Gas	104,956	107,279	109,178	126,944	99,437	101,558
■ WW Electricity from non-AE	11,894	16,057	12,331	11,560	11,877	11,800

City of Austin Municipal Operations

Vehicle Fuel Emissions in MTCO₂



Carbon Neutral Fleet Plan

1. New Vehicle and Equipment Purchasing

- Qualitative – Departmental Needs Analysis
- Quantitative – Cost Benefit Analysis Calculator

2. Fueling Infrastructure and Fuel Purchasing

- Gap analysis and long-term planning
- Minimize fuel costs through fuel consortiums and tax credits

3. Driver Education

- Do I need to drive?
- Driving for Efficiency
- Fueling my vehicle properly
- Training Rollout and Challenge

Carbon Neutral Fleet Goals

1. New Vehicle Purchases

1a. 95% of vehicles purchased are alternatively fueled/ hybrid units

2. Fueling Infrastructure and Fuel Purchasing

2a. Dual Fuel Vehicles use alternative fuel 80% of the time

2b. Increase the amount of alternative fuels purchased by 10% per year

3. Driver Education

3a. Train 100% of City staff who utilize fleet vehicles

3b. Decrease greenhouse gas emissions per mile by 5% per year

3c. Increase citywide mpg by 5% per year

Green Purchasing & Operations

Policies/Resolutions/Ordinances

- Green Building (LEED Silver)
- Green Infrastructure (encouraged)
- Energy Conservation
- ECAD
- Vehicle Acquisition
- Fuel Purchasing and Refueling
- Idling and Vehicle Operation
- Trip Reduction
- Bottled Water Prohibition
- Single Use Bags
- Universal Recycling
- Surplus Property
- Watering Schedule

Policy in Development, Pending

- Paper Purchasing & Paper Use
- Printers and Document Imaging
- Tree Maintenance & Trimming
- Food Vending & Catering
- Irrigation

Green Purchasing & Operations

Guidelines (Voluntary)

- Carpet & Flooring
- Paint
- Office Electronics
- Landscaping Maintenance
- Ink and Toner
- Oils and Lubricants
- Pest Management
- Janitorial Services & Products

Best Practices

- Hardscape and Paver Maintenance @ City Hall
- Grow Zones
- Convention Center Catering and Window Washing
- Low Emission Construction Equipment
- Recycled Content Asphalt
- No liners in desk trash cans @ City Hall

Green Purchasing Upcoming

- New overarching Sustainable Purchasing Policy
- Increasing number of mandatory commodity specifications & operations policies
- Focus on Goods and Non-professional Services
- Process for new / renewed contract analysis
 - Water, Resource Management, Energy, Toxicity
 - 3 Product Lifecycle Stages
 - Performance comparison
 - Life Cycle Cost Analysis

Carbon Offset Program: PICC

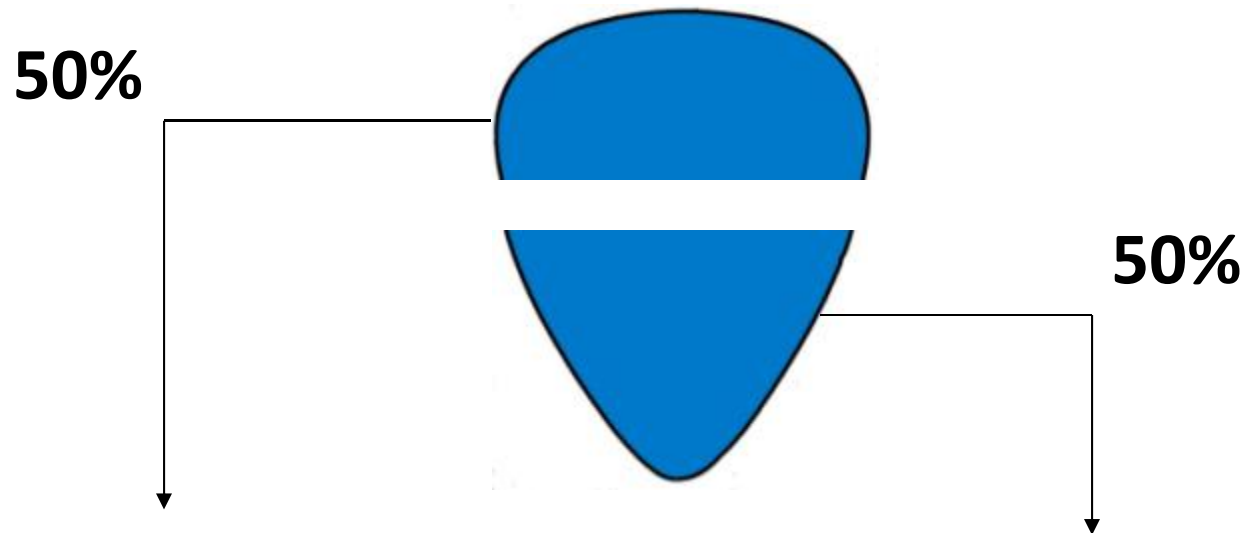


- Positive Impact on Climate and Community (PICC Promotes carbon neutrality to travelers, festivals, conventions
- Utilizes proceeds from ticket sales to fund local projects with climate and other sustainability benefits
- 50% funding to local projects
- 50% funding to 3rd party verified offsets in Texas
- RFA now active to find local projects

Founding Partners



PICC Purchase with Ticket



Verified Projects in Texas

- Organic Waste Digestion
- Organic Waste Composting
- Landfill Methane Destruction
- Nitric Acid N₂O Reduction
- Renewable Energy

Sustainability Projects in Austin

- Urban forestry
- Solar PV + weatherization
- Composting
- Bike-sharing
- Community gardens

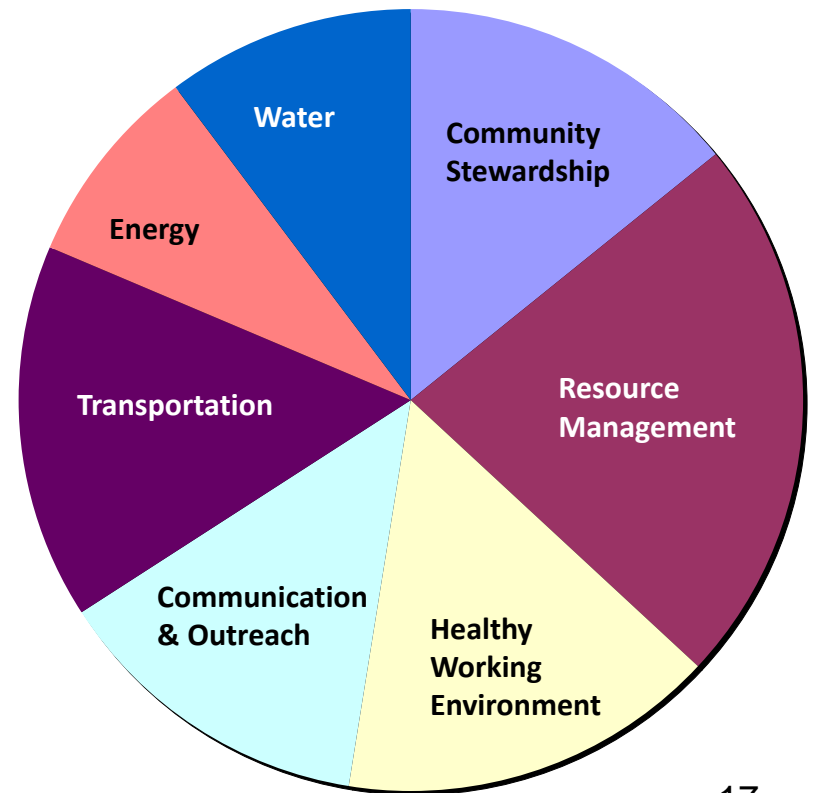
Austin Green Business Leaders

7 Scorecard Categories

- *Energy*
- *Water*
- *Community Stewardship*
- *Communication & Outreach*
- *Resource Management*
- *Transportation*
- *Healthy Work Environment*

92 actions

147 points



93 Green Business Leaders

Over 4,570 actions documented

Over 4.5 million square feet

Over 9,000 employees



43 Platinum (46%)

Office DEPOT.



36 Gold (39%)

HNTB

movability
AUSTIN



14 Silver (15%)

East Side Pies - Airport Blvd.
SewFits
Meridian Solar
Go Green Squads LLC
ALEON Properties, Inc.
Greenergy
Austin ShadeWorks

Federal Highway Administration Grant

- Pilot project
- State DOTs and MPOs
- Two paths:
 - **Type I: Vulnerability Assessment Pilot**
 - Type II: Adaptation Options and Integration Pilot
- **\$304,000 total grant** (50% federal, 50% local match)
 - 2013 Vulnerability Assessment recipients:
 - Alaska DOT
 - Arizona DOT
 - **Capital Area Metro (CAMPO)**
 - Connecticut DOT (ConnDOT)
 - Iowa DOT
 - Maine DOT
 - Michigan DOT
 - Minnesota DOT (MNDOT)
 - North Central Texas Council of Governments (NCTCOG)
 - Tennessee DOT (TDOT)

Local Impacts



Drought: Buckling roads - 2009



Flooding: Tropical Storm Hermine - 2010



High winds - 2013



Drought: Disrupted Water - 2011



Heat: Worker Safety - 2011



Wildfires - 2011

Adaptation Framework

Step 1

• **Asset Inventory and Criticality Assessment**

- Inventory of existing transportation assets
- List of assets by category based on criticality assessment
- Identify asset thresholds to extreme weather events

Step 2

• **Determination of Potential Future Climate Exposure**

- Historical and projected extreme weather exposure
- Future impact to critical assets
- Projected changes to flood plains for key areas of concern
- Focus group interviews with partners to validate results

Step 3

• **Vulnerability and Risk Assessment**

- GIS data set ranking vulnerability of transportation to climate change
- Collection of data for assets with indicated vulnerability
- Risk analysis of assets with highest ranked vulnerability
- Prioritized list of assets by category based on criticality assessment

Step 4

• **Prepare Final Report and Presentation**

- Creation of a report documenting findings and actions
- Symposium to present findings
- Distribution of report to community stakeholders

Thank You

Questions?

